Exercise 1: Idea project diagram

Tell us about an embedded system that does not exist. It can be grandiose or strange; it can be something just one step beyond what you have around you. Ideally it is something you personally want to build (even if physics doesn't allow it). If you have a final project in mind, you can start on that. If not, be imaginative, reality does not need to apply here.

What is it? What does it do? What general components do you need?

This should be summarized in 3-6 sentences. Then make at least one block diagram describing the system as discussed in Chapter 2 and the associated lectures. More diagrams are better.

Write your idea in a Google doc or a md file on Github and submit your assignment to the #assignment-submission channel on Discord by 9:00am PT on Saturday

Due Date: Mar 26, 2022, before the live class

CLASSPERT

Exercise 2: Rubric for Peer Grading Diagrams

Review diagrams from your peers.

Grade them according to the following rubric:

- For an assignment that truly exceeds expectations, give it the maximum score.
- A “Meets Expectations” score should be in the 50-70% range.
- A “Needs Improvement” would get 0-20%.

Note that the scale is flexible and an assignment may be between levels.

When giving feedback, remember that you are talking to a person who worked on the assignment, not a robot who needs correcting. The goal is to help them understand how it would work better for you.

Criteria	**Needs Improvement**	**Meets Expectations**	**Exceeds Expectations**	**Maximum Score**
Turned in	Turned in late or nothing at all.	Turned in on time, mostly complete.	Turned in on time and completed.	10
Embedded system	Diagram doesn’t seem to represent a system.	Diagram captures most of a system but may be incomplete or have an unbalanced level of detail. Peripherals are not clearly connected. Missing elements cause questions for the reader.	Diagram captures a succinct high-level overview of a system. Each peripheral is attached to a communication object. It also contains software structures (such as databases, command handlers, algorithms, state machines).	40
Clarity	Even with explanation, the	Some guesswork or	Diagram makes the system clear	25

	diagram is difficult to interpret. System requirements are poorly represented.	explanation is required but the diagram describes a system that makes sense.	and seems technically correct. Understandable at a glance.	
Neatness	Elements on page do not show any order or connection - resembles a random assortment of boxes. Unreadable font. Random extra lines. Elements that are too detailed for the high level overview.	Diagram is legible and understandable. Clear connections between elements. Possibly some areas that are a little chaotic to look at.	Neat and orderly. Might even go so far as to call it pretty. The spacing between elements is balanced between readability and ability to add in anything new if need be.	25
Bonus			Drawing has been revised at least once based on new findings or realization.	10